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# New Economy – The Behavioral Issues

Indira J Parikh
Bharti Kollan

**W.P. No. 2005-08-08**
August 2005

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**INDIAN INSTITUTE OF MANAGEMENT**
**AHMEDABAD-380 015**
**INDIA**

## Abstract

The paper 'New Economy – The behavioral Issues' focuses on the impact of the Information Technology. The IT virtually has sipped into the very existing structure of the mankind, be it a kitchen or a corporate office.

The paper contains a description of some of the main characteristics of New Economy, as well as its terminology. The fundamental role of Information and Communication Technology is highlighted.

Today, the organization is at the cross roads as it is going through a transition period by shedding the baggage of traditional mode of working and accepting as well as trying to absorb the fast pace changing environment of the IT world.

The paper explores the various plethora of New Economy, which is becoming as an octopus. It talks about the presence of IT in the global world, society as well as its grip on organization. The paper also provides a glimpse of how it affects on the very life of human being.

Overall, the paper gives an indication not only of the importance of 'New Economy' but also of how it inter-linkages with our behavioral pattern.

# NEW ECONOMY – THE BEHAVIORAL ISSUES

## INTRODUCTION

Speculation about the drastic and deep transformations has always been popular in the history of economics. There are many examples of predictions of the imminent demise of well-established economic patterns, such as business cycles or inflation. A statement made by Irving Fisher on the eve of the stock market crash in 1929 is good example in this context. He said, "We *are living in a new era, and it is of the utmost importance for every businessman, and every banker to understand this new era and its implications*". History shows that there are indeed reasons to be cautious with these kinds of prediction.

For a few years now, we have been confronted with a new type of speculation about the death of the "Old Economy" and the arrival of a "New Economy". This has been triggered by the undeniable fact that the overall performance of, in particular, the US economy over the past five to six years has been exceptionally good. So what is the New Economy? Is it an economic nirvana? And how do we know it exists.

The term "New Economy" seems to indicate that we are now experiencing developments totally different from what we have seen before, i.e. affecting basic economic rules and destroying existing structure in society. The development of technology may have important effects on economic developments by enhancing efficiency, leading to changes in relative prices in the economic and thereby affecting the incentives and organizational behavior of individuals and companies. But new technology does not change basic economic laws.

When we talk about the new economy, we're talking about a world in which people work with their brains instead of their hands. A world in which communications technology creates global competition - not just for running shoes and laptop computers, but also for bank loans and other services that can't be packed into a crate and shipped. A world in which innovation is more important than mass production. A world in which investment buys new concepts or the means to create them, rather than new machines. A world in which rapid change is a constant. A world at least as different from what came before it as the industrial age was from its agricultural predecessor. A world so different its emergence can only be described as a revolution.

Free markets are central to it. But simply to say that the new economy is about the unprecedented power of global markets to innovate, to create new wealth, and to distribute it more fairly is to miss the most interesting part of the story. Markets themselves are changing profoundly.

The classic example is the rise of the Microsoft, which is due to the shift in the values of capitalism. This happened, because the rules of competition are changing to favor companies like Microsoft over paragons of the industrial age.

Microsoft's rise is a testimony to the power of ideas in the new economy. Working with information is very different from working with the steel and glass from which our grandparents built their wealth. Information is easier to produce and harder to control than stuff you can drop on your foot. So an information economy is more open - it doesn't take a production line to compete, just a good idea. But it's also more competitive. Information is easy not just to duplicate, but to replicate. Successful firms have to keep innovating to keep ahead of copycats nipping at their heels. The average size of companies shrinks. New products and knockoffs alike emerge in

months rather than years, and market power is increasingly based on making sense of an overabundance of ideas rather than rationing scarce material goods. Each added connection to a network's pool of knowledge multiplies the value of the whole - one reason for Microsoft's astonishing growth. The result: new rules of competition, new sorts of organization, new challenges for management.

Some zealots talk about a New Economy, capital N, capital E, all too easily caricatured as "there won't be inflation anymore, because of technological change."

In the last 15 years, a "New Economy" has emerged. Among its defining characteristics are a fundamentally altered industrial and occupational order, unprecedented levels of entrepreneurial dynamism and competition, and a dramatic trend toward globalization – all of which have been spurred to one degree or another by revolutionary advances in Information Technologies [IT].

It is important that, before entering into any further discussion on the impact of the New Economy, there is agreement on the meaning of this concept. When following the popular media, there seems to be some confusion surrounding the definition of the concept. Sometimes, there is a feeling that any development in society, which is even remotely related to the use of information technology and the Internet in particular, is regarded as a sign of a New Economy.

**GLOBALIZATION**

While the old economy was national in its scope, the New Economy is global. It is estimated that more than $21 trillion of the world economy's combined output will be open to global competition in 2000, up from $4 trillion in 1995.12 This growth will be driven by global capital markets, reduced economic and trade barriers, and—perhaps most importantly—technological change, which makes it easier to locate enterprises and sell products and services almost anywhere. When the old economy emerged in the 1930s, the winners were countries whose businesses sold to national markets, as opposed to local or regional ones. At the beginning of the 21st century, the winners will be the country whose businesses are most integrated into the world economy. Despite the current slowdown in many nations, a global orientation ensures expanding markets for a state's industries.

Since the workforce of globally oriented firms also earns more than other firms, a global orientation means that a state's workforce will have a higher standard of living. The globalization indicators in this section measure two things:

1) The extent to which the state's manufacturing workforce is employed producing goods for export
2) The share of the workforce employed by foreign-owned companies.

By the New Economy, we also mean two broad trends that have been under way for several years. The first is the globalization of business. Simply put, capitalism is spreading around the world – if not full – blown capitalism, at least the introduction of market forces, freer trade, and widespread deregulation. It's happening in the developing country.

The second trend is the revolution in information technology. This one is all around us – fax machines, cellular phones, personal computers, and modems, the Internet. But it's more than that.

It's the digitization of all information – words, pictures, data, and so on. This digital technology is creating new companies and new industries before our eyes.

All of this entrepreneurial energy is transforming the world. We can argue about whether there is a New Economy, but there is a new business cycle. Housing and autos used to drive the country economy. Now, information technology accounts for a quarter to a third of economic growth. Also, this is an industry that pays very good wages. Furthermore, information technology affects every other industry. It boosts productivity, reduces costs, cuts inventories, and facilitates electronic commerce. It is, in short, a transcendent technology – like railroads in the 19th century and automobiles in the 20th.

This two broad trends, globalization and information technology, are undermining the old order, forcing business to restructure. If we want to compete in global markets or take advantage of rapid technological change, we have to move quickly – and the means getting rid of layers of management. Technology makes it possible: Put a PC on everyone's desk, network them together, and we don't need so many middle managers. The result: a radical restructuring that is making us more efficient.

These trends can combine in powerful ways to raise country's standard of living, create jobs, spur entrepreneurial effort – and do all this without boosting inflation.

## THE MAIN CHARACTERISTICS OF THE NEW ECONOMY

The New Economy phenomenon has been variously referred to as, the *weightless economy*, the knowledge economy, the digital economy, the electronic economy, the virtual economy or network economy, and several other titles besides. A review of all the different meanings attached to the term brings us to define the New Economy as one based on knowledge and information, relying on sub sectors such as purely digital goods and services, mixed goods [that is, physical goods that are sold through the Internet] and the ICT industry.

Viewing it from a broader perspective, we might interpret the New Economy not only as a phenomenon arising from the impact of ICT at microeconomic level, but also as a consequence of the effects of technological innovation in macroeconomic terms [improvements in productivity, lower inflation, structural changes in the productive sector and in employment, the new role of government, etc.] all this in a international setting shaped by globalization.

## ICT: THE INFRASTRUCTURE OF THE NEW ECONOMY

ICT have spread rapidly, both in the economy and in society in general, partly because they have completely transformed ways of accessing, processing and storing information. These technologies are therefore present in all aspects of human activity, making it possible to set up endless links between different areas, activities and agents.

These changes have favored the emergence of the so – called information technology paradigm, which features characteristics that favor the development of an interconnected, interdependent economy, with a network structure. Its tremendous flexibility and capacity for transformation permit the increasing convergence of specific technologies into a highly integrated system. The support of this new paradigm is the Internet.

It is our conviction that we will be able to achieve a sustainable information society only if we can create conditions which foster dynamic technological and economic developments – while at the same time respecting and strengthening social, cultural and environmental equilibrium.

The great potential of ICT represents an opportunity for us to move forward to a richer and more balanced society. The transition towards an information society represents an enormous opportunity. It will be a catalyst for great changes, of one kind or another. We propose to make it the occasion to increase sustainability and to prepare a better life for all. Sustainability demands the balancing of social, economic, cultural and environmental aspects of society within a long – term perspective.

There is no doubt that information and communication technologies offer huge opportunities to stimulate economic growth, and at the same time to overcome social exclusion, support cultural diversity and reduce environmental burdens via the dematerialization of production and consumption. Economic growth, social equity, cultural diversity and care for the environment are all clear priorities and values for societies.

World population is likely to reach nearly 10 billion people, and may yet go higher. There is suggestive evidence that access to education for people of developing countries is the major factor in the "demographic transition" from high population growth to sustainable levels. ICT could make a major contribution to speeding this transition – if the development mechanisms were in place to, for example, bring the Internet to rural community centers.

## THE IMPACT OF NEW ECONOMY ON SOCIETY

History has seen a move from the agricultural society, through the industrial society and to the information society. The advent of the IT, ICT, and media has made a great impact on people. Traditional market and traditional people in the organization are changing, because of the exposure that they receive through ICT. The advent of ICT is also impacting on the individual, team and family too. Now, there is no need for individual to wait for days and months to send or receive messages from far distant places. Thanks to Internet. It has made possible for people to communicate within a minutes. Society is transforming too. "The world has become a virtual village". People's perspective has undergone a drastic change, because of interconnectivity and interactions, which is due to the information that we get from the technology.

Electronic mail (email) use is one of the important emergent phenomena of computerization. Email capabilities are often treated as minor additions to computer systems with more social roles. Yet numerous professional and managers consider them the most crucial tools in their computer systems (Bullen and Bennett, 1991, Ladner, 1992). It is however, relatively unknown to the majority of professionals and managers who has significant interests in or responsibilities for, these technologies. Email increases many people's connections both in and out of their organizations. It transforms social relationships between people who connect electronically rather than in person by increasing the ease and frequency of interaction and democratizing group discussion.

In modern organizations, people use multiple means of communicate, including face-to-face, memos, telephone, and email. Each of these offers different possibilities for developing a position, learning how others feel, and obtaining other cues. Often, participants who have on-going relationships will use two or more of these media.

Social influence in group discussion is communicated through verbal, paralinguistic and social context cues. A number of experiments have been conducted into group or team effects of computer-mediated communication, which consisted of exchanging text information through the use of interconnected computers and computer software, including e-mail. These experiments demonstrated the extremely fast, paperless exchange of words afforded by electronic communication, but also found that the consequent reduction in paralinguistic and social context cues prevented the full exchange of views and feedback possible in face-to-face interaction. These researchers hold that when discussion time is held constant, the number, length, complexity and novelty of arguments is less in computer-mediated discussions than in face-to-face group discussions.

Overall conclusions suggested that teams using computer-mediated communication might be less influenced by norms than they would be in face-to-face interactions, yet team members are equally as convinced and confident of the choices they make in both cases. The researchers posited that the difference found in social influence by media was due to the difference in fullness of verbal and nonverbal exchange afforded by the different forms of communication, leading to the general conclusion that design of technologies should take into account their effect on social behavior.

However, in organization, people used to interface with face to face. Now, people can work and interact even without meeting physically. So the nature of relationship is too changed.

There was an Old World of 'IT' and Development, characterized by thought, by occasional conference and publications. We can criticize that Old World for being too much thought and not enough action. Now, there is a New World of ICT's and Development, characterized by action by initiatives springing up faster than spring flowers. We can criticize that New World for being too much action and not enough thought: racing so head long to grab headlines that it fails to understand the roots of wealth and creation.

## TECHNOLOGY AND HUMANITY

Humanity, by the end of the second millennium of modern civilization, has, as a side effect of some of its technological achievements, brought the biosphere to the verge of catastrophic population and pollution conditions. At the same time, parallel technological developments are responsible for linking information machines and people around the world in a global communications net. The increasing integration of people with machines -- the "cyborgization" of society -- brings with it a catalogue of psychological side-effects, some arguably beneficial, many undeniably harmful. Alienation, depression, anxiety, cynicism, emotional implosion and suicide and finally, ecocide, are the daunting consequences of surrender to the cybernetic -- self guided -- machines. On the other hand, an emotionally literate integration of heart and machine could redeem a sustainable, humane future.

Human behavior is determined by information. Information is at the core of life and people need information, just as they need air, water and food, to stay alive. Information hunger can be perverted and exploited just as other human needs for food, sex or affection. In the Cybernetic Information Age, deceptive and false information -- info-junk -- as well as information overload are acquiring the power to defeat people's genetic and experiential capacities to survive. These two toxic information conditions –- info-junk and information overload -- obscure life-threatening situations developing around the world, inhibit us from protecting ourselves from them and

prevent us from using feedback for bringing about necessary change. On the other hand we are developing the info-technology to adequately provide everyone with accurate knowledge, including knowledge about information; herein lies the key to our future.

Humankind is in the EYE of another storm, a second VORTEX or threshold. It needs to decide where to go, which actions to take and which values to cherish. One way might be leading towards light, ethics and harmony, the other to the contrary. With modern civilization and technology another trial becomes more obvious every day. How to combine real and digital/multi-medial worlds, how to live in imaginary or ideal worlds parallel to the physical environment, how to communicate about these new 'realities' and share impressions, proportions and consequences of action and inaction.

There is some tendency to go back to 'square one', returning into a pre-industrialized society. But the status quo or a certain point in the past seems to be hard to maintain or impossible to establish, given the status and dynamics of the world and its change (population density, environmental impact, human attitudes, values and tolerance). Some experts even maintain that Cyberculture will definitely accelerate the loss of meaning and context. They phrased and predicted a 'SECOND FLOOD', like Einstein called the impact of modern information and media the 'THIRD BOMB', predicting irreversible development and lasting impacts. Their prophecy is that this predicted flood has no tides, so there is no point going back to some mythical 'normal'. Therefore they see the nightmare of cultural catastrophe with no exit points or changing qualities and trends. So the SECOND FLOOD is termed as the CYBER CULTURE.

As we have to create and design FUTURES, we cannot allow a fatalistic extrapolation of trends becoming the standard or accepted view about what a technology driven future will have in store for us. We have to face and tackle for our children's children and us the challenge at hand. As media and the modern data-information- and communication-technologies are central to what is going on, it seems advisable to have a look at what we learn when we study media and communications. The textbooks introduce different qualities and outreach of realities: The first reality is the reality of our natural environment, the second reality is what is 'aired', what is sent all over the world on all channels and through all media, the third reality is our personal, private, and individual reality, what you select and take in as information from channel selections.... not the myriad of messages, but what is really taken in and influences you. What seems to be missing is the "next step", the idea of jointly constructing shared realities in common frames of reference – a fourth, shared, mutual reality.

As we need to not only chart and compass, but also to captain, we need a host of ingredients for proper orientation and navigation. Using our experience to find and map territories, we might not only be able to share landscape realities, but also the process-scape and mindscape realities. This will help us know where we are without disorientation. The moment we landmark and anchor points, we have our hold and orientation and need not worry about qualities of information, because that is what humankind is good at -- filtering out unwanted information, closing the eyes and ears.

There were common frames of reference before. When living in the family, the village, the same region, the common ground was stable enough to be understood, at least to a certain degree. What was up and might be going on for fellow human beings; not being able to understand all, but to risk an educated guess what our companions had in mind. This is not so in modern global society. Our context, cultures and value systems are so different that we can only refrain to 'tolerance

towards intolerance' (Lord Menuhin) or giving up. So, how can we establish a 'tolerance towards intolerance'? We either have to develop some overview, to see things in perspective, see position, levels, and situations in their context and how they relate or develop compassion, loving and feeling with the fellow human being, whatever and wherever and why ever.

Many of the challenges presented by the information infrastructure are not readily amenable to legislative and other hierarchical solutions. They require gentler, community-based measures as an adjunct to, and even an alternative for, formal regulatory action.

Communities in cyberspace need means of achieving cohesion and maintaining relationships, while avoiding unduly dysfunctional behavior by community-members and outsiders.

A culture exists when a group of people exhibits cohesion through the sharing of values, language, rituals and icons. 'Cyberculture' is used in this document to refer to the concept of a group or groups of people achieving cohesion by means of the information infrastructure.

For all practical purposes, 'information infrastructure' currently means the Internet. That may well change; but if the telecos persist with their broadcast-style 'cable-TV' philosophy, with high-bandwidth down and only low-bandwidth up the line, the Internet may remain as the only basis for Cyberculture to develop.

The Internet is at the crossroads between community and commerce. Can it be matured fast enough for the infrastructure to support both, with minimal disturbance by each of the other?

The sense of community on the net may prove to have been a short, unsustainable burst of goodwill, fated to be superseded by apathy and crass commercialism; a modern counterpoint to utopias in places as promising as Gauguin's Pacific Islands, and as unlikely as Bolivia, and to the idealism that was the popular communism of the 1920s.

For the sense of community to be sustained, in parallel with commercial applications, it is essential that the pioneers turn their efforts to the specification of follow-on products, services, protocols and architecture that support human
communication and human use of electronic tools, and discourage un- neighborly behavior.

There is a fundamental need for net-based services of all kinds to be impregnated with icons and rituals that reflect human relationships and culture. The explosion of first desktop publishing and then the web has seen the skills of computer science complemented by that of visual design specialists. We now need to blend in the insights of anthropology, of culturally oriented social psychology, and of normal, thinking, feeling people.

## THE IMPACT OF NEW ECONOMY ON ORGANIZATION

"Until recently, when you said you worked with someone, you meant by implication that you worked in the same place for the same organization. Suddenly though, in the blink of an evolutionary eye, people no longer must be co-located - or, in the same place - in order to work together. Now, many people work in 'virtual teams' that transcend distance, time zones, and organizational boundaries" (Lipnack, 1 1997).

The term "virtual" was born in the computer industry, describing virtual memory, which is hard disk space used as temporary memory. When a software program knows there will not be enough memory to perform a certain task, instead of stopping the user from completing the task, it will use the hard drive as temporary memory. This enables the user to perform complex tasks that could not be achieved on standard memory (George, 1996).

The term "virtual" applies to teams in a similar way. Instead of organizational or geographic boundaries preventing employees from working on complex tasks needed to gain a competitive edge, virtual teams fool the organization into thinking that the team members work together in the same space and time with the same set of organizational norms (George, 1996).

Virtual teams have evolved as a way to make working across continents and countries an easy, practical way to achieve superior results-- people must no longer be co-located, or in the same place, in order to work together. Planning and design are key to virtual team success. The design of the organization, the team, and the job is the basis for building a successful virtual team. In addition to these factors, the work must be coordinated through technology and the stakeholders in the project must interact and keep each other updated. Lastly, when the employee finishes a project and must re-enter the host organization or another virtual team, planning by both the team member and the host organization is essential.

In recent years, more and more organizations are moving toward the use of virtual teams that are separated by time and space (e.g. different time zones, geographic locations and organizational boundaries) to collaborate on projects (Lipnack and Stamps 1997). The main reasons for this shift include increased globalization of trade, need for interorganizational cooperation and better resource use (Townsend, DeMarie and Hendrickson 1998). Typically, virtual teams are linked through such technologies as electronic mail, bulletin board, audio/video/data conferencing, automated workflow, online chat, electronic voting and collaborative writing to engage in synchronous or asynchronous interactions (Coleman 1997).

Research has shown that virtual teams evolve differently than traditional face-to-face teams, thus requiring different ways for these teams to be developed and managed (Rogers and Albritton 1995; Townsend, DeMarie and Hendrickson 1998).

1. Virtual teams require a high degree of "swift trust" to be present at the outset since team members do not have time to develop it in a gradual fashion. Such trust is based more on proactive, enthusiastic and generative style of action exhibited by team members (Jarvenpaa, Knoll and Leidner 1998).
2. Multiple channels of communications such as phone, video conferencing, fax, etc. are needed to increase the depth and breadth of interactions among virtual team members (Gay and Lentini 1995).
3. The sense of cohesion and satisfaction with group interaction processes is weaker in virtual teams due to the lack of face-to-face communication (Warekentin, Sayeed and Hightower 1998).
4. Virtual team's members face the problems of social isolation, information overload and domination by selected members created by electronic communication (Rogers and Albritton 1995).
5. Different skill sets are required by virtual teams to maintain a strong sense of "teamness" and effective communication, socialization and collaboration (Jarvenpaa, Knoll and Leidner 1998).

Because the virtual team is self-managed, an authority that controls the fate of the team or its members does not govern the members. Members' affiliations cut across functions, geography, and organizations. Members are often part of multiple teams at the same time, and report to different individuals in their "home" organizations. The teams are autonomous and have broad range of authority and responsibility for their goals, means, and deliverables.

Typically, members of a virtual team (Ishaya and Macaulay, 1999):

1. have no physical place as a common home
2. interact primarily through the use of computer-mediated communication technologies
3. rarely or never get to see each other in person
4. often have different language and cultural backgrounds
5. have individual constraints of which others may never be aware of.

Virtual teams are like project or natural work teams with added components. The latter may consist of members with cross-functional backgrounds from the same company, in the same location. They work together to solve problems in their day-to-day jobs. However, teams become virtual when you add any of the following three components:

**Different geography or locations of team members:** Virtual team members can be located in different parts of a city or in different parts of the world. As the distance increases and more time zones are crossed, the window of synchronicity in the workday narrows. New England is six hours behind Europe, and people in California leave work just as their counterparts in Japan start their next day (Lipnack, 1997).

**Team members from different organizations or parts of the organization:** Team members can be from different organizations or from different parts of the same organization. For example, a semi-conductor industry research organization in Research Triangle Park, North Carolina, uses virtual teams to prioritize projects. Linking people from across North America, project teams from 12 semi-conductor companies, sixty universities and twenty-four government agencies focus on the kinds of research customers need most. Team members use computer technology to share data, run presentations and rank categories of research (George, 1996).

**Different duration's or lengths of time that members work together as a team:** Depending on its mission, a virtual team may unite for a project that lasts a few days, months, or years. For example, the semi-conductor organization referenced above created their team in order to prioritize 200 research programs. The virtual team "met" for two days and prioritized the programs at a cost of ten million dollars instead of at a cost of twenty million dollars in two weeks (George, 1996).

The teams become more virtual as each component is expressed to a greater extent. The team becomes more and more virtual as the team is made up of members from different geographies and companies and the more they form and reform for ongoing work (George, 1996).

Virtual teams are on the verge of exploding in companies around the world. Global competition, the computer age, and excessive travel expenses have evolved to make working across continents and countries an easy, practical way to achieve superior results. Using a combination of technology and teams, many companies are pursuing virtual teams to increase technology and knowledge transfer, increase the speed of solutions and decrease bottlenecks or delays between customers and suppliers or geographically dispersed employees (George, 1996).

However, in the mad rush to implement virtual teams, companies may underestimate the need to plan and design around the differences inherent in virtual teams. Assuming that employees who have been team members in the past can make the transition to a virtual work team environment without planning and design, is like sending them on a collision course with disaster (George, 1996).

Creating virtual teams is not as easy as pulling together a cross-functional team to solve a problem. Because the make-up and locations of the team can be quite heterogeneous, unprepared team members collide with mistrust, unrealistic or unequal expectations, cultural differences, co-ordinating work logistics, group dynamics and leadership issues (George, 1996).

Effective communication is further mediated by the types of technologies used, extent of time and space separation of the teams, and their pattern of communication over time.

**Technology** plays a major role in the success of virtual teams because it helps shape the pattern of communication in these teams. The accessibility, synchronicity and richness of the medium, as well as the technical experience of team members usually determine the extent to which certain types of technologies would be used and their frequency of usage. In fact, successful virtual teams often use different technologies to enhance the breadth and depth of their communication. For instance, electronic mail allows team members to communicate and exchange information asynchronously at their convenience. On the other hand, telephone requires simultaneous participation but with instant responses from each other. Videoconferencing, which requires remote team members to be present at the same time, can enhance social relationships by putting a face to the name, and allow better project coordination through virtual "face-to-face" interactions.

**Communication Pattern** is an essential part of virtual teams because it influences the building of social and work relationships among team members over time. Typically, virtual teams go through the stages of uni-directional, bi-directional and mutual communication during the course of their project. At the beginning, team members may start with uni-directional communication, where one side may initiate the communication with the others watching, feeling uncomfortable to interact, or simply indicating their own presence on a particular communication channel. As the project progresses, team members may enter the bi-directional communication stage where they (both local and remote members) are "talking *at* each other" to exchange task or socially related information. At this stage, while members from remote locations do share information, they typically do not respond to each other's questions meaningfully or consider each other's circumstances and priorities. Over time, some virtual teams are able to establish mutual communication by "talking *with* each other" in a substantive fashion, showing respect for each other, and taking into account each other's circumstances. The progression from one stage to the next depends on how well team members interact with each other at both the task and social level. For instance, teams that remain in the bi-directional stage tend to be sporadic and uncoordinated in their communication with very little substantive content. In contrast, those engaged in mutual communication exhibit high levels of meaningful interactions and strong social bonding with each other. The information and ideas shared at this stage are likely substantive in content. There is usually a genuine attempt by team members at establishing a social relationship through the use of such symbolic cues of humor, friendly gestures and sharing of stories.

**Social Dimension.** Managers need to be sensitive to the type of social relationship that exists in virtual teams. Where necessary, managers should actively encourage such social relationship to be developed among team members. Specifically, managers can:

- Establish clearly articulated guidelines for collaboration as well as etiquette for communication among team members. Examples include the use of greetings, email symbols e.g. happy face and acknowledgment as part of the communication. These external norms serve to formalize the expected pattern of team interactions early on in the project.

- Encourage the development of social bonding among team members through the use of humor, life stories and personal feelings as part of the communication protocols.

- Develop trust and empathy among team members through multiple channels of communication including real-time and media-rich interactions such as video conferencing.

- Develop a common understanding of the values and beliefs among team members by sharing their personal background, experience and values through communication.

- Monitor and discourage untoward team communication patterns such as rude comments, domination or opportunistic behaviors (e.g. taking undue credits) in order to maintain trust and understanding among team members.

The results of virtual work teams are as revolutionary as the teams themselves. Clearly, there are special concerns and risks involved with implementing virtual teams but, there are also obvious rewards. When targeted to the right kind of interdependent project and when properly designed, virtual teams can revolutionize the workplace by providing customers with faster, more innovative and previously unheard of business solutions (see Appendix). Also, they create new ways for employees to make outstanding contributions while enhancing their quality of work-life (George, 1996).

## VIRTUAL REALITY

The other major trend changing tomorrow's workplace will be technology, which has already made it possible for American business to become more productive. Computers and robots are now doing the work of two or three people, helping to keep total wages in check and hold down inflation. These are the most obvious results of technology.

Less noticeable and more interesting is the impact that technology will have on the nature of leadership.

The statistic reports that 27% of the civilian labor force worked flexible schedules last year. That is an increase of almost 83% from 1991, when only 15% of workers had flexible hours. These figures show that when a person does his or her job is becoming less important than meeting deadlines.

Add to that the increasing number of telecommuters who work at home or in their cars and it becomes obvious that employees need not always be at a predetermined location to get the job done. As long as the brain is working, the employee is working, or at least potentially.

That word "potentially" is a critical one. How will companies direct and manage a work force that can be almost anywhere?

Before the infusion of technology in our lives, people reported to work at a specific time of day and went home at a set time, too. There was a supervisor or manager who assigned work and directed employee activity. It was understood that from 8:00 a.m. to 5:00 p.m. the employee was dedicated to the job.

In our high-tech society, the worker might be taking a shower, watching KBC, or having lunch with his or her daughter between 8:00 a.m. and 5:00 p.m. While the supervisor is watching the evening news, the employee might be putting the finishing touches on a report needed for the presentation tomorrow morning.

Technology has shown employers that it does not matter how the employee spends his or her time as long as the job gets done to everyone's satisfaction. That makes for a significant change in the way we function. Even workers on the assembly line are experiencing a change in workplace organization. The structure we identify as a workplace is disappearing.

Most management layers have been downsized out of corporations during the 1990s. Today, there are fewer managers to report to and fewer decisions that require their input. The concept of empowering workers has left an indelible mark, not only on the work force, but on the marketplace as well. Consumers are expecting and getting better service from companies, and businesses are doing more to improve the service they give.

As technology helps companies deliver greater satisfaction to their customers, it also changes the work force. Workers of tomorrow can no longer rely on brawn to get them a job. The days of unskilled, manual labor are fading into the past.

Today's factories are becoming laboratories of technology. There are technical jobs in manufacturing that did not exist 10 years ago. Computers have even made an impact in the repair and maintenance field: Your auto mechanic, for instance, is just as likely to hook your car up to a computer terminal as he or she is to remove your carburetor.

The result of such technological development is that new opportunities have been created for women in fields that have traditionally been dominated by men. The most recent figures compiled by the statistics show that in 1996 almost 61% of technicians, engineers, sales engineers, and technical sales support staff was women. This trend is likely to continue as demand for engineering and technical jobs exceeds the supply.

Although industry leaders are attempting to attract young talent into technical areas--Motorola maintains a partnership with High School--fewer students are graduating with appropriate college degrees. Education Department figures for 1995 show a drop in the number of students completing college-level programs in computer and electrical
engineering since 1990. Yet, the Commerce Department estimates demand for information technology workers alone will reach a million by 2005.

Factories may be hit the hardest by the lack of competent workers: In a National Association of Manufacturers survey, 88% of respondents reported a shortage of skilled help in at least one job category. More than half reported employee shortcomings in basic math, writing, and comprehension skills.

Training will become the next boom industry as employers are forced to take on the responsibility of educating unskilled workers. The new economy will not allow American industry to wait for the politicians to fund public education. Employers will need to become the public schools of the next generation.

These results point to what we can expect over the next 25 years. Workers will be more independent and self-directed and companies will need to form partnerships with educators to prepare young people for the high-tech workplace.

However, there is a draw back of this cyber world also. His is termed as cyberspace. Cyberspace is an illusion; it is a consensual hallucination that is not anywhere in our physical reality. It is a no-place that exists only within headspace. Cyberspace is something that cannot be demarcated in geographical terms at all. It is a reality that can be localized 'nowhere' and yet its presence is felt 'everywhere'. It is a new form of social reality that is a challenge for sociologists who don't recoil from analyzing such ostensible 'metaphysical' realities. One thing seems to be sure: more and more people define and experience cyberspace as real.

However, there are at least three peculiarities of cyberspace:

1. It is a world in which we are able to travel in one twinkling of an eye - that is with mouse click - from one place of the earth to another: distance does not play a role in computer-mediated interactions and communications.
2. The times that count in cyberspace are highly accelerated and strongly individualized.
3. Nobody knows what the virtual social reality, which is established via the Internet will look like in the future. The possible futures of the Internet totally depend on how people will act and react, how they organize their operations and transactions, and how they can realize their own needs and interests, aspiration and fantasies in cyberspace.

**SUMMARY**

The New Economy is here to stay—there's no going back. It brings enormous potential for the growth of countries economies, but also introduces challenges. If countries do not invest in a knowledge infrastructure—world class education, training, and technology—companies will not have the skilled workers and cutting edge tools needed to grow and create well-paying jobs. If states erect barriers to the growth of the Internet and the digital economy instead of facilitating it, the real incomes of their residents will ultimately suffer from lost growth potential. And if Industrial Age state governments do not transform themselves into Information Age governments, they will impede, rather than advance growth. Simply put countries that meet the challenges of the New Economy—focusing on innovation, learning, and constant adaptation-will be the ones that succeed and prosper.

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